RESTRICTED Security Information

THE SURGEON'S Circular Letter

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A FAR EAST PERIODICAL OF ARMY MEDICAL SERVICES INFORMATION

MEDICAL SECTION - GHQ - FEC, SCAP AND UNC APO 500
RESTRICTED Security Information

Quartermaster Winter Clothing Issue For Field Troops Pictured on Layer Principle

on the cover

UNCACK employee gives medical aid to a young Korean at a refugee collecting point, Charmul, Korea.

THE SURGEON'S Circular Letter

Volume VI - Number 12
DECEMBER 1951
General Headquarters
Far East Command
Medical Center
APO 500

ADMINISTRATIVE

JLCOM MEDICAL CONFERENCE HELD AT TOKYO ARMY HOSPITAL

The first of a planned series of medical conferences on internal medicine was held at Tokyo Army Hospital 22-23 December. This conference, sponsored by the Surgeon, Japan Logistical Command, was attended by more than 100 military physicians of the Army, Navy and Air Force, from Japan, Korea and Okinawa, and included representatives from medical facilities of Canada, Denmark, Great Britain, Norway and Sweden.

The meeting was opened with addresses of welcome by Brigadier General William E. Shambora, Chief Surgeon, FEC, Brigadier General James P. Cooney, Surgeon, JLC, and Colonel Kenneth A. Brewer, MC, Commanding, Tokyo Army Hospital.

The conference, divided into two parts, began with discussions of general medical interest designed chiefly to orient internists in some of the newer phases of the care, treatment and convalescence of military patients. Speakers at the first day's conference included Colonel Ryle Radke, MC, Tokyo Army Hospital; 1st Lt. Alvin J. Schrager, MC, Osaka Army Hospital; Major Phillip P. Steckler, MC, and Colonel Franklin H. Grauer, MC, US Army Hospital, 8167th Army Unit; Lt.Col. Bernard J. Copple, MC, and Lt. Col. Henry C. Harrell, Tokyo Army Hospital; Lt. Col. Tyron Huber, MC, and 1st Lt. Andrew Wiley, MC, US Army Hospital, 8168th Army Unit; Colonel Carleton Godiel, MC, US Army Hospital, 8079th Army Unit; and Colonel Angvald Vickoren, MC, Surgeon's Office, JLC.

The second part of the conference on the following day was a symposium on epidemic hemorrhagic fever for the purpose of presenting papers on the subject by all medical officers who had worked with the disease and to stimulate discussion and exchange of information. The symposium was divided into four phases -- basic phase, early clinical phase, the late clinical phase and special aspects phase. Colonel Joseph H. McNinch, MC, Preventive Medicine Consultant to the Surgeon, FEC, and Colonel Charles L. Leedham, MC, Medical Consultant to the Surgeon, FEC, acted as moderators for the spirited and enthusiastic discussion periods that followed each presentation. Medical officers presenting papers were Capt. Ralph M. Takami, MC, Medical Intelligence Section, FEC; Lt. Col. Irvin Marshall, MC, Preventive Medicine and Public Health, Eighth Army; Lt. Col. Arthur Steer, MC, 406th Medical General Laboratory; Capt. Marc Crilly, MC, 8063d Mobile Army Surgical Hospital; Lt. Col. Charles J. Hornisher, MC, and Major William E. Swift, MC, US Army Hospital, 8167th Army Unit; Colonel George M. Powell, Osaka Army Hospital; Capt. Walter Kessler, MC, 121st Evacuation Hospital; Capt. W. H. Wallop, MC, USAF, and 1st Lt. H. C. Zaenger, MC, USAF, 6162d Hospital Group; Capt. Joseph H. Watson, MC, 382d General Hospital; Capt. Giulio Barbero, MC, 21st Evacuation Hospital; 1st Lt. Irwin Hoffman, MC, 11th Evacuation Hospital; and Lt. Col. George B. Potter, MC, US Army Hospital, 8167th Army Unit.

It is anticipated that the papers presented at the symposium will be submitted to the Surgeon General's office by Colonels McNinch and Leedham with a view to publication in the near future.

QUARTERMASTER TRAINS TROOPS IN PREVENTION OF COLD INJURIES

The Army Medical Service has conducted and is continuing to conduct extensive research in the field of cold injury control with particular emphasis on treatment of cold injuries. Cold injury teams, composed of Army Medical Service personnel, are now on duty with troops and medical facilities in Korea treating cases resulting from military operations in that theater.

Other cold injury groups, however, are presently engaged in the equally difficult task of preventing cold injuries. Little known to many Medical Service personnel are the Quartermaster Cold Weather Training Teams operated from General Headquarters, Far East Command, under the direction of Lt. Col. Howard F. Kuenning, QMC. These traveling control groups are normally attached to divisions and separate units for a specified length of time in order to train personnel in methods of protection against cold weather injury. Their mission is to explain the causes and prevention of cold injury with emphasis on frostbite, the necessity for practice by the individual of foot hygiene to include cleanliness, foot, ankle and leg exercises, daily foot massage and the proper use of winter clothing and equipment.

Typical of one of the Quartermaster control groups is the team composed of Captain James G. Monteith, an earnest young officer, and his assistant, Sergeant T. B. Bowlan. Captain Monteith explained the difference between wet cold and dry cold and the precautions to be taken when operating under field conditions in that type of climate. In attempting to make comparisons in climate he pointed out that Seoul can be compared to Chicago, and conditions north of the 38th Parallel are comparable to those found in Maine, New Hampshire and the Dakotas.

"When we make comparisons like these," Captain Monteith continued, "someone may say 'I come from Baltimore or Minnesota or North Dakota and I've been hunting and fishing in all kinds of weather back home. What's so dangerous about that kind of climate?' I tell them that when they were in Baltimore, Minnesota or Iowa or any other place stateside, they no doubt had the facilities and comforts of modern civilization. They didn't have to sleep out-of-doors and be exposed to the weather day and night on end. Cold climate is a dangerous enemy. In some respects more dangerous than the enemy soldier.

"Here's why we say that.

"Due to their training since they've entered the service they have a natural tendency to protect themselves from the enemy soldier. That hazard may normally be number one priority in their scheme of self-preservation. Cold is just as dangerous, if not more so, because if you don't take the proper precautions, it sneaks up on you when you are occupied with other things."

In World War II, cold injury cost the United States Army the equivalent of all the riflemen in ten full divisions, and in Korea last winter there were about 5,000 cold injury casualties. Many of these casualties could have been prevented if proper precautions had been taken, stated the Captain. Cold injury, he explained, wasn't something new. It had inflicted casualties on armies down through history. The Prussian armies and Napoleon's infantry suffered from cold injuries just the same as our troops.

"But," he said, "we know more about how to prevent it. We have the answers. I know how to prevent cold injury and when I am through with my lectures the troops are going to know as much about it as I do."

All of the winter clothing, not only the footgear, has a lot to do with whether or not one gets frostbitten. Though that sounds strange to most of the trainees, Captain Monteith explained that cold retards circulation but if the body is kept warm it will be more willing to circulate warm blood out into the extremities.

"Air space in your clothes," he continued, "gives you added insulation without added weight. The air doesn't weigh anything, materially, but it does help the body to keep itself warm. Several layers of medium weight clothing will keep you warmer than one heavy layer. That is why the combat uniform is designed on the layer principle. If the day is warm and you decide to remove some of your clothing, you should take off some of the inner layers first. Sergeant Bowlan, my assistant, demonstrates the proper wearing of the winter field uniform while I explain how and why it is worn that way. If someone should ask me if this uniform alone will prevent cold injury, the answer, of course, is a capital N-O. The men have to do that and they can do it if they remember what we teach them."

RECENT DEPARTMENT OF THE ARMY PUBLICATIONS

AR 40-35, 4 Dec 51: Medical Service - Appointment, Duties, and Responsibilities of Professional Consultants

AR 40-510, 4 Dec 51: Medical Service - Dental Care

SR 600-145-11, 16 Nov 51: Personnel - Assignment of Hospital Patients

SR 40-515, C-1, 10 Dec 51: Hospitalization of Army Patients in Naval Medical Facilities

T/A 20-7, 22 Oct 51: Equipment for Oversea Mortuaries (Included in Current Death Program)

T/O&E 8-552, 24 Oct 51: General Hospital, 1500-Bed, Communications Zone

TC 37, 19 Nov 51: General Hospitals, Communications Zone (T/O&E 8-551, 8-552, and 8-553)

DA Cir 90, 1 Nov 51: Sec II - Records of Personnel Returned from FECOM

DA Cir 96, 23 Nov 51: Sec II - Clarification of Accounting Classifications

DA Cir 100, 5 Dec 51: Sec III - Annual Physical Examination of Officers and Warrant Officers, Sec IV - Rates of Compensation for Civilian Medical and Veterinary Services

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MEDICAL CHIEFS MEET

More than 30 commanding officers from medical installations throughout Japan Logistical Command met in Yokohama Monday, December 3rd, in a two-day discussion of service medical problems.

Addresses by Major General Walter L. Weible, Commanding General, JLC, Brigadier General, William E. Shambora, Chief Surgeon, FEC, and Brigadier General James C. Cooney, Surgeon, JLC, opened the conference at the U. S. Army Hospital, 8168th Army Unit, Out-Patient Building.

Representatives from all JLC hospitals attended, as well as officers from the Japan Medical Depot, the 406th Medical General Laboratory, Tokyo General Dispensary, and Tachikawa, Johnson and Nagoya Air Force hospitals.

The convention is the second to be called this year by General Cooney for discussion of medical problems. The first was held last May.

During the two-day conference, officers lectured on various medical subjects, after which special problems were aired at question and answer sessions.

Speakers included: Maj. Paul A. Levault, chief of the JLC Medical Section's Personnel Division; Col. Angvald Vickoren, chief of the section's Operations Division; and Lt. Col. Charles A. McAllister, Capt. Bernard Rappaport, Capt. Grayson Smith, and Capt. Douglas C. Chitwood, all of the Operations Division.

Other lecturers on the program were Col. R. G. Belanger, chief of the Medical Section's Supply Division; Maj. Edith A. Aynes, Chief Nurse, JLC, and Dr. Anna R. Manitoff, Director of Public Health and Welfare, GHQ, FEC.

COLONELS LEEDHAM AND McNINCH JOIN MEDICAL SECTION, GHQ

The Medical Section, GHQ, recently welcomed to its staff of consultants Colonel Charles L. Leedham, MC, and Joseph H. McNinch, MC.

As Preventive Medicine Consultant, Colonel McNinch has replaced Colonel Arthur P. Long. Colonel Long was assigned to the Surgeon General's Office as Assistant Chief, Preventive Medicine Division, under Colonel Tom F. Wayne.

Colonel Leedham has been assigned to the Consultants' Division to replace Colonel Francis W. Pruitt, Medical Consultant, who departed the command for his new assignment with the medical service at Letterman Army Hospital, San Francisco.

ITALIAN RED CROSS HOSPITAL UNIT BEGINS OPERATIONS IN KOREA

The first non-United Nations country to serve with the UN forces in Korea opened its doors for business on December 16th. The Italian Red Cross Hospital Unit which arrived in the Far East Command last month is now set up in permanent-type buildings with added tents for their out-patient clinics.

Although all facilities are not functioning yet, the Italians are assisting a local Korean hospital by taking its overflow of civilians requiring medical and out-patient care.

The Italians' first patients were mostly babies and small children. Some of them were brought in strapped on their mother's backs -- Korean style. Others were carried in their mothers' arms, because they were too ill to travel to the clinic in the usual manner. Some of the patients were victims of frostbite--some were covered with festering sores, others had abscesses.

The Italian doctors, nurses and medical corpsmen worked swiftly bathing them, giving them medical attention and instructions on medicine to take and when to return to the clinic. Each little child was given a stuffed toy that the Italians brought with them from Italy.

All-in-all, the Italians considered their first day of operations a success. All patients who came were cared for and the gratitude they expressed as they left the clinic assured the Italian volunteers that they were very much needed in Korea.

"Now we are all happy," beamed Maj. Luigi Coia, Naples, commanding officer of the unit, "for we are doing what we have so willingly volunteered to do - helping these unfortunate people."

REPRINTS OF PREVENTIVE MEDICINE PUBLICATIONS OUTLINE AVAILABLE

In response to many requests, reprints of the "Outline of Publications Pertinent to Preventive Medicine Policies and Practices," which appeared as the center spread in the October 1951 issue of The Surgeon's Circular Letter, have been made available. This tabulation of publications, as supplemented by the monthly listing of pertinent Army Regulations, Special Regulations, Technical Bulletins, etc., offers to the preventive medicine officer an authoritative guide to reference material.

Requests for copies of this reprint will be promptly filled upon application to: The Chief Surgeon, GHQ, FEC, APO 500, Attn: Publications & Editorial Branch.

L-19 AIRCRAFT USED FOR EMERGENCY EVACUATION BY XVI CORPS

During the past few months the L-19 light aircraft, recently adopted by the Army as its standard liaison-type aircraft, has been enthusiastically accepted by all units to which it has been issued because of its excellent flight characteristics.

One of the problems confronting the XVI Corps surgeon, Lt. Col. F. W. Timmerman, was the consideration of this craft for use in emergency air evacuation of seriously ill or injured patients. It was found that none of the standard Army litters could be placed in an L-19 due to the size of the door and the conformation of the airplane's fuselage. Modification of the airplane to accommodate a standard Army litter of any type was obviously not a feasible or an economical solution.

Under the direction of Colonel Timmerman, aided by technical advice from Lt. Col. James L. Townsend, Artillery, XVI Corps Light Air Section, the problem was placed under study. As a first step, a Stokes litter was modified in the welding shop, 8062d AU, Army Aircraft Maintenance Team, Lanier Field, Sendai, Japan. This simple modification required about one man-hour of work and could be accomplished at any Army installation at little expense or trouble. (Fig. 1).

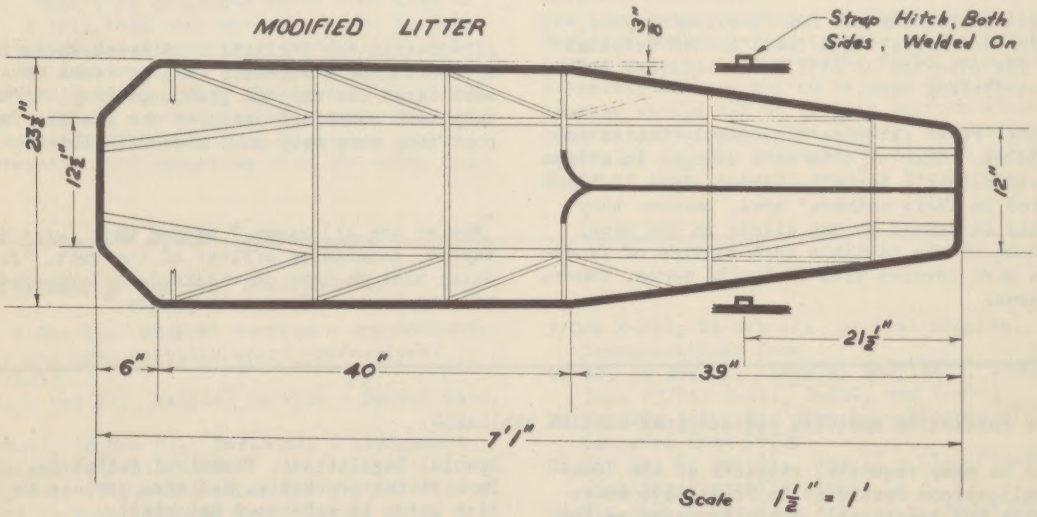
In order to use the L-19 for an ambulance plane, the following steps should be followed:

1. Slide the front seat all the way forward or remove if desired.
2. Remove back rest from rear seat.
3. Disengage rear shoulder strap cable from floor anchor.
4. Unsnap plastic curtain which forms the rear partition of the baggage compartment and fold forward.
5. Lengthen the rear safety belt to full extent.
6. Using one general purpose carrying strap, slip strap over V struts at the rear of the canopy allowing snaps to hang freely equi-distant.
7. Disengage front shoulder harness from overhead hanger.
8. Open all windows - remove door if desired.

After the airplane is prepared the patient, secured in the modified Stokes litter, may be easily loaded using a four-man team as follows:

1. Place litter on the ground to the right front of the plane at a 45° angle to the fuselage with foot of the litter to the rear.
2. Lift the litter, pass it over the right wing strut, tilt slightly, and slide along the back seat to the proper position. The head of the litter will be opposite the rear throttle control.
3. The previously placed snaps of the general purpose carrying straps are then engaged in rings on the side bars of the modified litter thus stabilizing the foot of the litter.
4. Hook the rear safety belt over the litter and patient.
5. Slip second general purpose carrying straps through the braces at the head end of the litter and engage both snaps in floor anchor. This will stabilize the forward end of the litter.

As a test the plane carried a 190 lb "patient." The pilot stated that the flight characteristics were unchanged and the "patient" reported that he enjoyed complete comfort with no shifting of the litter.



(Fig. 1)

JLC SURGEON DECORATED FOR SERVICES IN ATOMIC BOMB TEST

Brigadier General James P. Cooney, Japan Logistical Command Surgeon, has received the Legion of Merit for his work in developing and executing the radiological safety policies used in one of America's atomic bomb tests.

Major General Walter L. Weible, Commanding General, JLC, made the presentation to General Cooney in a ceremony at JLC headquarters Friday, November 30th.

The citation covers General Cooney's service from March 1, 1950 to May 30, 1951. It states in part:

"General Cooney was responsible for the development and execution of all radiological safety policies essential to the success of 'Operation Greenhouse.' His contributions were of great significance to the success of the operation. His actions have been of major importance to our national atomic energy program and reflect great credit on him and the military service."

General Cooney participated in the experiments with A-bombs"A" and "B" during the now famous "Operation Crossroads" in the South Pacific. He was also radiological safety officer with Task Force Seven during "Operation Sandstone" from October 7, 1947 to May 30, 1948.

General Cooney also participated in the atomic weapons tests in Nevada. He had been, previous to his assignments with JLC, liaison officer during "Operation Crossroads," chief of the Medical Service Radiological Division with the Armed Forces Special Weapons Division in Washington, D. C., and chief of the Special Projects Division in the Surgeon General's Office in the capital.

General Cooney's home is Silver Spring, Maryland. He is a member of the American Medical Association, a fellow of the American College of Chest Physicians, and a member of the Radiological Society of North America.

General Cooney has been an Army officer for a quarter of a century. He was graduated from the Army Medical School in 1929. He is a graduate, with M.D. and B.S. degrees, of the University of Iowa.

GHQ MEDICAL SECTION MOVES TO NEW OFFICE

Moving day came on 27 November for the GHQ Medical Section. Activities were suspended temporarily as the section left the Mitsubishi-Shoji Building, its quarters since the Occupation began, and reopened offices nearby in downtown Tokyo.

Visitors will now find the Chief Surgeon and his staff operating on the second floor of the Empire House, a city block west of the Mitsubishi-Shoji Building. The move brought together on the same floor the GHQ Medical Section and the Public Health and Welfare Division, which became part of the Medical Section several months ago. Also sharing the new quarters is the Tokyo Office of the Atomic Bomb Casualty Commission.

REQUISITIONING PROCEDURE FOR ARMED SERVICES CATALOG OF MEDICAL MATERIEL

In order to effect a broader distribution of the limited number of Armed Services Catalogs of Medical Material available within the Far East Command, resupply of the catalog or any section thereof should be handled as follows:

1. Army Medical Service Units requiring the catalog or any section thereof should submit requisitions through normal Adjutant General publications supply channels.

2. The publications supply point or unit receiving the requisition for catalogs should take action as follows:

(a) Korea: The supply point or unit should prepare an extract requisition of the item, showing requisitioning unit and address, and forward to the Medical Supply Officer, Medical Section, Eighth Army, for approval as to quantity and actual requirement. Upon approval by the Medical Supply Officer, the requisition should be forwarded to the Far East Command Printing and Publications Center, APO 503, for direct shipment to the requisitioning unit.

(b) Japan: The supply point or unit should forward extract requisitions, showing requisitioning unit and address, through normal Adjutant General publications supply channels to the Far East Command Printing and Publications Center, APO 503. The requisition should be forwarded to the Medical Section, Japan Logistical Command, for approval of quantity and actual requirements and then returned to the Center. The item can then be shipped direct to the requisitioning unit by the Center.

(c) Okinawa: The supply point or unit should forward extract requisitions, showing requisitioning unit and address, through normal Adjutant General publications supply channels to the Far East Command Printing and Publications Center, APO 503. The requisition should be forwarded to the Medical Section, Ryukyus Command, for approval of quantity and actual requirements and then returned to the Center. The item can then be shipped direct to the requisitioning unit by the Center.

AWARDS TO ARMY MEDICAL SERVICE PERSONNEL

The following additional Army Medical Service personnel have been awarded the Silver Star, Legion of Merit, Bronze Star Medal with "V", Bronze Star Medal or Commendation Ribbon for exceptional bravery in face of the enemy and meritorious service during the Korean conflict.

SILVER STAR

Barden, Landon D., PFC
O'Grady, Clifford J., Pvt
Pringle, Alvin J., PFC
Prottas, Soloman, W., Sgt

LEGION OF MERIT

Archuletta David O., Cpl

BRONZE STAR MEDAL with "V"

Allen, Theodore L., PFC
Bartholomay, Eugene, M/Sgt
Becker, John J. 3d, M/Sgt
Bennett, Charles R., PFC
Bleile, Paul P., PFC
Burton, James E., Cpl
Burton, Mack E., Cpl
Gladysz, Edward T., Cpl
Hostelling, Roger H., Cpl
Huggins, Lewis H., 1st Lt.,MSC
Jackson, Leon, Cpl
Johnson, Milton K., Cpl
Kirk, Wiggo., F. C., Cpl
O'Brien, John D., PFC
Phillips, Howard L., Sgt
Richardson, Leo F., Sgt
Rivera, Miguel A., Sgt
Shaffer, Richard G., PFC
Silveira, Lino F., PFC
Smith, John C., PFC
Spence, Marion D.,PFC
Stropes, Lloyd R., Lt Col, MC
Tisor, Lester D., Sgt
Wetzelberger, Charles, Sgt
Williams, Neil S., 1st Lt., MC
Williams, Paul J., PFC

BRONZE STAR MEDAL

Banister, Wellman R., Capt, MSC
Bolocan, Hyam, Maj, MC
Bortner, Richard B., Maj, DC
Bukovitz, Steve L., Maj, MSC
Camoesas, Afonso, SFC
Cintron, Andres A., 2d Lt, MSC
Collier, Charles N., Capt, DC
Dally, Richard H., Cpl
Devlin, Laurence P., Lt Col, MC
Dupree, Richard H., Maj, MC
Eveland, Charles L., Capt, MSC
Fisher, Franklin C., M/Sgt
Hart, William T., M/Sgt
Heck, Jesse E., Jr., Capt, MC
Huggins, Lewis H., Capt, MSC
Jensen, Robert T., Maj, MC
LaStrapes, Thomas, Capt, MC
Langlois, Alfred E., Capt, MC
Lister, Heamon L., M/Sgt
Livingston, Woodrow, Capt, MSC
Loyd, Reginald C., 1st Lt, MSC
Marks, Edward, Maj, MSC
Moller, Charles F., Maj, MC
Montes-Cardona, Juan, SFC
Munson, Jasper P. Jr., Maj, MC
Olsen, Lloyd L., Capt, MC
Rioux, Conrad, Capt, DC
Sarrell, Warren, 1st Lt, MC
Sawyer, Howard P. Jr., Capt, MC
Schwartz, Frank E., Maj, MC
Selley, Harold V., Sgt
Staley, Albert E., Jr., Capt, DC
Stein, Samuel E., Capt, DC
Taggart, Robert S., Capt, MSC
Tinkle, James W., Capt, DC
Vetstein, Arnold D., Capt, DC
Volla, Daniel Della, SFC
White, Lee R., M/Sgt
Zielazinski, Harry, Capt, MSC

COMMENDATION RIBBON

Bertea, Octavian, Capt, MSC
Bowers, Joe W., Sgt
Bukovitz, Steve L., Maj, MSC
Burgio, Joseph C., Capt, MSC
Cave, Clifford G., M/Sgt
Chapman, Wyatt D., Jr., SFC
Dyer, William S. Jr., 2d Lt, MSC
Hembree, James J., Cpl
Hill, Elmer E., Sgt
Holsey, Stanley, M/Sgt
Joseph, Fred E., M/Sgt
LaCates, Aloys F., Sgt
Maiten, James L., SFC
Morgan, John W., M/Sgt
Morrison, Harold D., SFC
Penney, Vance E., SFC
Perrigin, Lyman M., SFC
Prescott, William J., Capt, MSC
Sanchez, Jose T., Sgt
Stofferahan, Arnold, Cpl
Wilder, Calvin C., SFC
Williams, Lonnie, Cpl
Young, Claude E., Capt, MSC
Zynda, Steven J., Sgt

TECHNICAL

AMENDED DOCTRINE FOR ARTIFICIAL RESPIRATION PROCEDURES

On December 6, 1951 the Department of Defense announced the issue of a new publication, "Manual Artificial Respiration." Methods more successful than the widely used Schafer prone pressure method are described. Letter from Surgeon General's Office, Department of the Army, dated 27 November 1951, indicates that the present Schafer method of artificial respiration will be supplanted and that a training circular covering the recent changes in artifical respiration methods will be published and distributed in the near future. For interim use in the Far East Command, the following information is published:

1. Use of Artificial Respiration. Artificial respiration is used to induce breathing in persons

whose respiration has stopped. The common causes of respiratory failure where artificial respiration has value, are drowning, suffocation, electric shock, and poisoning by illuminating gas or carbon monoxide. Artificial respiration is also used occasionally in certain illnesses, such as poliomyelitis. Poison gases and nerve gases used in warfare may cause respiration to cease. Attempts to start respiration after breathing has stopped, are made either by mechanical or manual methods. Mechanical methods require the use of machines which usually are not on hand when most needed. Manual artificial respiration, which can be conducted by anyone familiar with the methods, can be started immediately and can be continued until breathing has started or until mechanical respirators become available.

2. Present Methods. The present method of manual artificial respiration used extensively in the United States is the Schafer prone pressure method. This is the method used by almost all life guards and industries. It consists of placing the victim face downward and then having the operator compress the victim's chest by pressure on the lower ribs of the back. This pushes air out of the chest and hence is a "push" method. It depends upon the elastic recoil of the chest and internal organs for air to be drawn into the lungs. Since this latter process is not given assistance by the operator, there is no "pull" maneuver in the Schafer method.

3. Other Methods. There are several other methods of manual artificial respiration which are widely used in Europe and by skilled anesthetists in the United States, but seldom used by lay personnel. These other methods all follow the principle of both pushing the air from the chest, as in the Schafer method, but in addition incorporating a second step which then pulls the air into the chest. These other methods are: (1) The back-pressure arm-lift method (Holger Nielson), in which the patient is placed face down with his hands under the cheek and the operator rhythmically presses on the back of the chest and then pulls upward on the arms; (2) The back pressure hip-lift or hip-roll method, in which the patient is placed face down and the operator rhythmically presses on the back and then raises the hips or rolls the hips upward on the operator's thigh; (3) The modified Silvester method, in which the patient is placed face upward and the operator rhythmically presses on the abdomen and then manipulates the arms upward.

4. Comparison of Methods. Recent research activities have led to the following conclusions:

a. The back-pressure arm-lift method of manual artificial respiration (Holger Nielson) is the method of choice.

b. The back-pressure hip-lift method of manual artificial respiration should be used, when indicated, on victims with injuries of the arms.

c. The Silvester method of manual artificial respiration, with the victim lying on his back, should only be used when the victim cannot be placed face down.

d. The Schafer method, which is less effective, should be supplanted by the back-pressure arm-lift method.

5. Agencies Adopting New Method. As a result of the recent experimental work on manual artificial respiration, the new method has been adopted by the Armed Forces, the American National Red Cross, the Federal Civil Defense Administration, the Public Health Service, the Bureau of Mines, the Boy Scouts and Girl Scouts of America, the American Telephone and Telegraph Company, the Council on Physical Medicine and Rehabilitation of the American Medical Association, and others. Additional national agencies, utilities corporations, fire departments, and police departments will probably adopt the method later.

6. Effective Date. Although the back-pressure arm-lift method of manual artificial respiration is being adopted by many agencies, it cannot be taught to all operators overnight. However, it will supplant the Schafer method as rapidly as the adopting agencies can instruct their teachers and operators. Meanwhile, the Schafer method will continue to be used. It must be borne in mind that, although the back-pressure arm-lift method of manual artificial respiration is considered to be superior, the Schafer method has saved many lives and should not be abandoned until the new method has been learned.

7. Research Leading to Adoption of New Method.

a. Historical. Although the Schafer method of manual artificial respiration has been used extensively in the United States for many years, there have been a large number of research investigations into the entire artificial respiration problem. Before World War II, observations by a growing number of investigators cast doubt upon the belief that the prone pressure method was of superior effectiveness. Then during and soon after World War II important contributions to our knowledge of respiratory physiology and of the asphyxial process were made by investigators working under grants from the Armed Forces, particularly the Air Force. This work gave further evidence that a change from the prone pressure method should be made. In 1947, the American Red Cross requested the Council on Physical Medicine of the American Medical Association to review the problem. A committee of the Council reported that the prone pressure method appeared to be inferior to certain other methods, but recommended that further study be made before selecting a method to be adopted. Accordingly, the Red Cross made grants during 1948 and 1949 to evaluate various methods of artificial respiration. The work so done was highly fruitful. Meanwhile, the military services were also pursuing problems of respiration and asphyxia. Then, approximately two years ago, the Army Chemical Corps had to consider the problem of giving artificial respiration to a large number of people in the event of warfare when poison gas or nerve gas might be used. In view of the growing question of the most effective method of artificial respiration, the Chemical Laboratories, Army Chemical Center, Maryland, requested Dr. David Bruce Dill, Scientific Director of the Laboratories, to organize concerted research into the problem and recommend the best possible method of artificial respiration.

b. Research Teams. Dr. Dill made immediate arrangements with the following experts to organize research teams and to begin research in January 1950:

1. Dr. Julius H. Comroe, Professor of Physiology, University of Pennsylvania, Graduate School of Medicine.

2. Dr. Archer S. Gordon, University of Illinois Medical School.

3. Dr. Peter V. Karpovich, Professor of Physiology, Springfield College.

4. Dr. James L. Whittenberger, Professor of Physiology, Harvard University.

c. Type of Experimental Work. Many studies were made using the various methods of artificial respiration. Included in the studies were animals, volunteers holding their breath, freshly deceased cadavers, and sick or injured patients who had stopped breathing. Experiments were also performed upon volunteers who were given drugs which completely paralyzed their ability to breathe for a short period of time.* These experiments, which were extremely necessary, were conducted under carefully controlled conditions. The ease and effectiveness of teaching the various methods of artificial respiration and ease or difficulty in administering the various methods of artificial respiration were also tested.

d. Results of Experimental Work. The results fell into three main classes: (1) Experiments to determine which method gave the greatest exchange of air; (2) which method was the easiest to learn; and (3) which method was the easiest to perform. These were as follows: (1) When measurements were taken to determine how much air was exchanged through the mouth in the various methods of manual artificial respiration, it was determined that when the Schafer method was used, only 485 cc's, or approximately one pint, of air was exchanged with each application of pressure. Compared to this, the push-pull methods, such as the back-pressure arm-lift or hip-lift; or the Silvester method with the individual lying on his back, provided an exchange of over 1,000 cc's, or over one quart, of air with such application of pressure combined with arm or hip manipulation. Inasmuch as the number of cycles of manipulation per minute are essentially the same in all methods, this revealed that the Schafer method was less than one-half as effective as the other methods in the exchange of air. Experiments also revealed that the effectiveness of the Schafer method depended upon the natural tone and elasticity of the victim's muscles. This is due to the fact that the pressure on the small of the back, used in this method, expels air from lungs and it is only when the ribs spring back into place that air is sucked back in. However, when a victim is deeply asphyxiated and near death, there is a loss of natural muscle tone, less elasticity of the chest, and less tendency for air to be sucked in. This makes the Schafer method least effective when most needed.

Many deaths in the asphyxiated, and especially in electrocution, are due to ventricular fibrillation, or heart failure, and sometimes this cannot be avoided. However, it is less liable to happen if there is sufficient oxygen in the blood. The exchange of a large volume of air in manual artificial respiration helps keep the blood oxygen level high; (2) Experiments with ease of teaching the various methods of manual artificial respiration indicate the Schafer method is the easiest to teach. However, the teaching of the back-pressure arm-lift and back-pressure hip-lift methods was only slightly more difficult and this method can be taught to most people in a period of approximately ten minutes; (3) Experiments relating to ease of operation revealed that both the Schafer method and the back-pressure arm-lift method could be performed by a half-grown child or a woman upon a heavy adult victim without undue fatigue. The back-pressure hip-lift method, however, was very fatiguing and probably could not be performed by a light individual upon a heavy adult. Experiments with the modified Silvester method of artificial respiration, where the victim is placed on his back, revealed that it had one serious drawback. That was the inability to keep the throat clear. Although the method could be used by skilled anesthetists, it could not be used extensively by lay personnel due to the fact that the victim's tongue, or water and debris might stop up the air passages.

From these experimental results it was determined that the back-pressure arm-lift method of manual artificial respiration provides for sufficient exchange of air, can be easily taught, and easily performed, and therefore is the method of choice. In addition, inquiry to the Danish and Norwegian Red Cross Societies where this method had been used for years, revealed that there had never been any injuries in the practice of the method or in its actual use in resuscitation of the asphyxiated. The only potential drawback to the use of this method would be in cases where the victim had severely injured arms which could not be raised. In this case, results of the experiments indicate that the back-pressure hip-lift method should be used. Finally, results of the experiments indicate that the modified Silvester method, or supine method, should only be used when an individual cannot be placed on his stomach, i.e., after operations.

e. Action of National Research Council. In view of the compelling evidence and the recommendations made to the Department of Defense in the Chemical Corps Medical Laboratories Research Report No. 79, in August, 1951, the American Red Cross, in cooperation with the Public Health Service, requested the National Research Council to call a conference of agencies interested in the problem of artificial respiration. At this conference, held on October 1, 1951, top scientists and authorities presented findings of the research, and agency representatives had an opportunity to consider thoroughly the problem of manual artificial respiration. As a result of this conference the following statement was made:

"IT IS THE RECOMMENDATION OF THE CONFERENCE THAT THE METHOD GENERALLY PREFERRED IS THE ARM-LIFT BACK* PRESSURE METHOD ORIGINALLY DESCRIBED BY HOLGER NIELSEN: THAT OTHER METHODS ACCEPTABLE UNDER SPECIAL CIRCUMSTANCES INCLUDED THE HIP-LIFT BACK-PRESSURE METHOD AND THE MODIFIED SILVESTER METHOD. THE TECHNIQUES OF THE FIRST TWO METHODS RECOMMENDED ARE THOSE DESCRIBED IN CHEMICAL CORPS LABORATORIES REPORT #79, MANUAL ARTIFICIAL RESPIRATION, AUGUST 1951, EXCEPT THAT THE FIRST PHASE WILL BE EXPIRATORY RATHER THAN INSPIRATORY. THE TECHNIQUE OF THE SILVESTER METHOD IS DESCRIBED IN THE BUREAU OF MINES FIRST-AID MANUAL."

*At the implementation meeting held on October 2, 1951 at the American National Red Cross headquarters, it was agreed that this term should be altered to "back-pressure arm-lift," to indicate that back-pressure should be applied first as a means of clearing the airway.

f. Adoption of New Method. Because manual artificial respiration is taught and practiced so widely and by so many different organizations including the Armed Forces, Red Cross, various industries, Boy Scouts, Girl Scouts, Police and Fire Departments, and others, it was apparent that the back-pressure arm-lift method of manual artificial respiration could not be adopted overnight, and that the Schafer method would have to be continued until it could be supplanted by the more effective method. Therefore, on October 2, a meeting of military and civilian representatives of organizations interested in the problem of artificial respiration was held at Headquarters, American National Red Cross, to determine the most effective method of disseminating information on the back-pressure arm-lift method to the agencies and personnel who would use it. Also, immediate plans were made for teaching and publicizing the newly advocated method. At this time manuals are being printed, instructors indoctrinated, and the back-pressure arm-lift (Holger Nielsen) method will soon be taught on a large scale.

8. General Instructions for Manual Artificial Respiration. Certain general principles must always be kept in mind in performing any method of artificial respiration.

a. Time is of prime importance, Seconds Count. Do not take time to move the victim to a more satisfactory place; begin at once. Do not delay resuscitation to loosen clothes, warm the victim, apply stimulants, etc. These are secondary to the main purpose of getting air into the victim's lungs.

b. Quickly place the victim in the prone position, that is, on his abdomen with the face turned to one side, the elbows bent, and the cheek resting on the back of the hand.

c. Quickly sweep your fingers into the victim's mouth, removing froth and debris and drawing the tongue forward.

d. Begin artificial respiration and continue it rhythmically and uninterrupted until spontaneous breathing starts or the patient is pronounced dead.

e. As soon as the subject is breathing for himself, or when additional help is available, see that the clothing is loosened (or removed, if wet) and the patient is kept warm. However, do not interrupt the rhythmical artificial respiration to accomplish these measures.

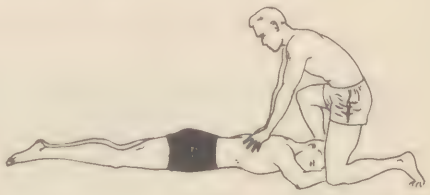
f. If the victim begins to breathe on his own, adjust your timing to assist him. Do not fight the victim's attempts to breathe. Synchronize your efforts with his.

g. Do not wait for a mechanical resuscitator, but when an approved model is available use it. A well-performed "push-pull" type manual method is immediately available and effective and accomplishes adequate ventilation. The mechanical resuscitator is no more effective than a properly performed "push-pull" manual technique. The most important advantages of good mechanical resuscitators are that they require less skill to operate, are not fatiguing and can furnish 100% oxygen. There are other advantages. Since the resuscitator need only be applied to a patient's face, it can be employed when physical manipulation of the body is impossible or would be harmful, as during surgical procedures, in accident cases with extensive burns, broken vertebrae, ribs, arms, etc., for victims trapped under debris of excavations, overturned vehicles, etc., and during transportation of the victim. Furthermore, some resuscitators signal when the airway is obstructed; and provide an aspirator.

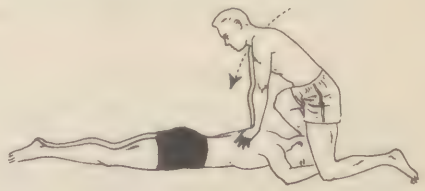
9. A Standard Technique for Executing the Back-Pressure Arm-Lift Method of Artificial Respiration.

a. Position of the Subject. Place the subject in the face down, prone position. Bend his elbows and place the hands one upon the other. Turn his face to one side, placing the cheek upon his hand.

b. Position of the Operator. Kneel on either the right or left knee, at the head of the subject, facing him. Place the knee at the side of the subjects head close to the forearm. Place the opposite foot near the elbow. If it is more comfortable, kneel on both knees, one on either side of the subject's head. Place your hands upon the flat of the subject's back in such a way that the heels of the hand lie just below a line running between the arm pits. With the tips of the thumb just touching, spread the fingers downward and outward.

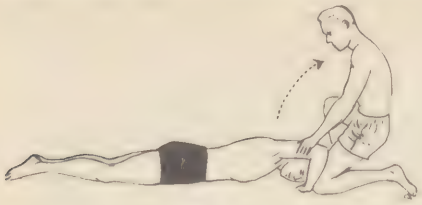


c. Compression Phase. Rock forward until the arms are approximately vertical and allow the weight of the upper part of your body to exert slow, steady, even pressure downward upon the hands. This forces air out of the lungs. Your elbows should be kept straight and the pressure exerted almost directly downward on the back.

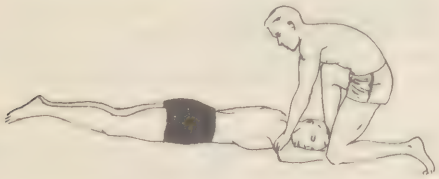


d. Expansion Phase. Release the pressure, avoiding a final thrust, and commence to rock slowly backward. Place your hands upon the subject's arms just above his elbows, and draw his arms upward and toward you. Apply just enough lift to feel resistance and tension at the subject's shoulders. Do not bend your elbows, and as you rock

backward the subject's arms will be drawn towards



you. Then drop the arms gently to the ground. This completes the full cycle. The arm-lift expands the chest by pulling on the chest muscles, arching the back, and relieving the weight on the chest.



The cycle should be repeated twelve times per minute at a steady, uniform rate. The compression and expansion phases should occupy about equal time, the release periods being of minimum duration.

e. Additional Related Directions. It is all important that artificial respiration, when needed, be started quickly. There should be a slight inclination of the body in such a way that fluid drains better from the respiratory passage. The head of the subject should be extended, not flexed forward, and the chin should not sag lest obstruction of the respiratory passages occur. A check should be made to ascertain that the tongue or foreign objects are not obstructing the passages. These aspects can be cared for when placing the subject into position or shortly thereafter, between cycles. A smooth rhythm in performing artificial respiration is desirable, but split-second timing is not essential. Shock should receive adequate attention, and the subject should remain recumbent after resuscitation until seen by a physician or until recovery seems assured.

DEPARTMENT OF VIRUS AND RICKETTSIAL DISEASES
406th Medical General Laboratory, APO 500

Procedures for Collection and Submission of Specimens for Diagnosis of Virus and Rickettsial Diseases

1. INTRODUCTION:

a. The informative material outlined herein is published to familiarize medical officers, especially those newly arrived in the Far East Command, with the services which are available to them in the Department of Virus and Rickettsial Diseases, 406th Medical General Laboratory, APO 500. This augments methods and procedures outlined in Section J, JIC Cir 9, April 1951, "Diagnosis of Virus and Rickettsial Diseases." In large part this information is also contained in TM 8-227, Methods for Laboratory Technicians, Aug 1951, a publication not yet available in this command.

b. This material should not be considered to be a laboratory manual for the conduction of virus procedures but is intended to make known the tests that are conducted, the specimens required for testing and the proper method of collection and shipment of specimens.

c. In order to facilitate and expedite diagnostic procedures it is requested that each initial specimen submitted for serology or isolation attempts be accompanied by a clinical abstract of the date of onset of disease, the clinical diagnosis, and pertinent clinical and laboratory findings. Such information is essential to help this laboratory choose the proper procedures necessary to confirm or disprove these clinical diagnoses.

d. Direct correspondence with the Department of Virus and Rickettsial Diseases, 406th Medical General Laboratory, APO 500, on technical matters is authorized by SR 40-305-10, 28 December 1949, in order to standardize, facilitate laboratory methods, control investigation and prevent misplaced effort.

2. COLLECTION AND SHIPMENTS OF SPECIMENS FOR SEROLOGICAL TESTS:

a. In order to make a definitive diagnosis of virus or rickettsial disease by serological means, it is necessary to demonstrate an increase in antibody titre in the blood of the patient during the course of illness and convalescence. For this reason, a minimum of two serum specimens must be obtained from each patient suspected of having a virus or rickettsial disease. One of these specimens should be collected during the active phase of illness. The time of collection of specimen for virus disease is shown in Table 1 and for the rickettsial disease in Table 2. Specimens of whole blood submitted for serological tests should not be frozen. The 406th Medical General Laboratory will render reports of serological testing on all specimens submitted, at a time when all serum samples on a given patient have been tested.

b. Procedures for Collection of Blood for Serological Evaluation:

(1) Withdraw, aseptically, approximately 25 ml. of blood from the patient's vein with a sterile, dry syringe and needle, place in a sterile test tube and allow to clot firmly at room temperature for several hours. A bleeding venule (vacuum tube)may be employed for this purpose. Place serum, obtained after separation from the clot by slow centrifugation, in a sterile Wasserman tube which is sealed with a sterile rubber stopper held in place with adhesive tape. If it is not possible to separate serum from the clot, whole blood, in a tightly-stoppered tube, may be forwarded provided freezing temperatures are not encountered.

(2) Affix a typewritten or clearly printed penciled label to the tube, giving the full name of the patient, together with serial number and

rank and the date on which the specimen was taken.

(3) Wrap the clinical abstract around the specimen and place in a mailing tube adequately packed with cotton and forward to the 406th Medical General Laboratory, APO 500, by the most expeditious means.

Table 1.

SUMMARY OF SEROLOGICAL TESTS FOR DIAGNOSIS OF COMMON VIRAL DISEASES OF MAN
WITH TIME WHEN SPECIMENS SHOULD BE COLLECTED

Suspected Disease	Tests Commonly Performed	Approximate Day of Disease for Bleeding		
		Acute Specimen 1st Spec	Convalescent 2nd Spec	Specimen 3rd Spec
Respiratory Group:				
Influenza A & B	Red cell agglutination inhibition	before day 2	after day 8	NCT**
Primary atypical pneumonia	Cold hemagglutination	before day 7	after day 21	NCT
Psittacosis	Complement fixation	before day 10	after day 21	NCT
Aseptic Meningitis				
Lymphocytic choriomeningitis	Complement fixation; neutralization	before day 10	after day 21	and 42
Mumps meningitis	Complement fixation	before day 6	after day 21	NCT
Dermotropic Group:				
Lymphogranuloma venereum	Complement fixation	before day 10	about day 21	and 42
Neurotropic Group:*				
Japanese B encephalitis	Complement fixation; neutralization	before day 6	about day 21	and 35
Russian Spring and Summer encephalitis	Complement fixation; neutralization	before day 6	about day 21	and 35

* - In cases of encephalitis of other viral origin, St. Louis Encephalitis, Western Equine Encephalomyelitis, Eastern Equine Encephalomyelitis, Venezuelan Encephalomyelitis (equine) and West Nile Disease, serum should be submitted at the times indicated for Japanese B encephalitis.

** - Not Commonly Tested

Table 2.

SUMMARY OF SEROLOGICAL TESTS FOR DIAGNOSIS OF COMMON RICKETTSIAL DISEASES OF MAN
WITH TIME WHEN SPECIMENS SHOULD BE COLLECTED

Suspected Disease	Tests Commonly Performed	Approximate Day of Disease for Bleeding		
		Acute Specimen 1st Spec	Convalescent 2nd Spec	Specimen 3rd Spec
Epidemic Typhus	Weil-Felix; complement fixation; rickettsial agglutination	before day 6	about 15th	and 21st
Murine Typhus	Weil-Felix; complement fixation; rickettsial agglutination	before day 6	about 15th	and 21st
Scrub Typhus	Weil-Felix	before day 6	about 15th	NCT*
Q Fever	Complement fixation	before day 10	after 21st	NCT

* - Not Commonly Tested

NOTE: For other suspected rickettsial diseases (Spotted Fever, Rickettsial Pox, Fievre Boutonneuse and South African Tick disease), serum should be drawn on or about the 6th, 15th and 21st day of disease.

3. COLLECTION AND SHIPMENT OF SPECIMENS FOR ISOLATION AND IDENTIFICATION OF VIRAL AND RICKETTSIAL AGENTS.

a. The attempted isolation of these agents is a laborious and expensive procedure. Most virus and rickettsial diseases can be diagnosed much more rapidly by serological means. Isolation procedures should therefore be limited to the following conditions:

(1) From brain tissues obtained at necropsy from cases diagnosed as encephalitis, aseptic meningitis, or rickettsial disease. (See para 3b(1) below.)

(2) From the cerebrospinal fluid collected during the early febrile period only in cases of suspected lymphocytic choriomeningitis or meningitis associated with lymphogranuloma venereum. (See para 3b(3)(b))

(3) From the blood collected during the early febrile states only of suspected lymphocytic choriomeningitis. (See para 3b(3)(a))

(4) From throat washings obtained from patients suspected of having influenza. (See para 3b(3)(c))

(5) From various organs obtained at necropsy if a localized outbreak of fatal disease of unrecognized etiology occurs. (See para 3b(1)(2))

Specimens of serum for antibody studies must be submitted on all living patients from whom materials are sent for isolation of virus.

b. The following paragraphs describe in detail the proper procedure for obtaining and shipping tissue and body fluids from which viruses or rickettsiae may be recovered. To expedite and insure the proper handling of such specimens, they should be transported only after telephoning the Commanding Officer, 406th Medical General Laboratory, APO 500.

(1) Procedure for taking tissues for isolation attempts

(a) For neurotropic virus infections perform the autopsy as soon as possible after death. The brain and the spinal cord should be examined, and specimens taken before the thoracic and abdominal cavities are opened. In practice, the calvarium is opened in the usual manner using a saw and chisel previously well washed with alcohol. After the calvarium is removed, the dura is washed with 100 cc of 70% alcohol and allowed to drain. Wearing sterile gloves, the dura is opened with previously sterilized scissors and forceps. Using a second set of sterile instruments, blocks of grey matter, about 1 cm on a slide, are taken from each of the frontal, parietal, occipital and temporal lobes (including hippocampus) and the cerebellum. These blocks of tissues are then placed in sterile wide-mouthed bottles and prepared for shipment as outlined in paragraph 3b(2)(a) below. The entire brain is removed after severing the cranial nerves and cervical and as deep within the spinal canal as possible. This brain should be suspended by the basilar artery in a container holding 3500 cc of 10% formalin. The formalin should be replaced on the second day. After ten days the brain should be packed in a suitable sealed container surrounded by formalin-soaked cotton and shipped to the Department of Pathology, 406th Medical General Laboratory, APO 500, Tokyo, Japan.

(b) For Rickettsial Diseases - In fatal rickettsial diseases, specimens of brain and spleen should be taken, and prepared for shipment as indicated in paragraph 3b(2)(a) below.

(c) For fatal diseases of unrecognized etiology - in such instances sections of brain, kidney, liver and spleen should be taken and prepared for shipment as indicated in paragraph 3b(2)(a).

(2) Preparation of necropsy tissue for shipment

(a) Ideally, each tissue specimen obtained at autopsy should be placed in separate sterile wide-mouthed rubber-stoppered bottles and frozen as quickly as possible. The specimens should then be transported, packed in dry ice, by the most expeditious means to this Laboratory. However, since solid carbon dioxide is not generally available in this theatre, the alternate method is to ship such tissues in sterile buffered glycerin to the Department of Virus and Rickettsial Diseases, 406th Medical General Laboratory, APO 500, Tokyo, Japan.

(b) Sterile buffered glycerin solution is prepared as follows:

1. Citric acid, 21 gm to 1,000 ml double distilled water.

2. Anhydrous Na_2HPO_4 28.4 gm to 1,000 ml. double distilled water.

3. Take 9.2 ml of 1) above and 90.8 of 2) above to make 100 ml. of buffer solution pH 7.4; check the pH.

4. Mix equal parts of 3), preceding paragraph, and C.P. glycerin; half-fill cotton-stoppered specimen bottles and sterilize at fifteen pounds of steam pressure for 30 minutes. Replace cotton plug with sterile rubber stopper.

5. In emergencies, freshly boiled, double-distilled water may be substituted for the sterile buffer solution in preparing the 50 percent glycerin.

(3) Procedures for obtaining and shipping body fluids for isolation attempts.

(a) Blood - to be suitable material for isolation of viruses or rickettsiae, whole blood must be frozen immediately upon collection and shipped in sufficient dry ice to insure its arrival at this Laboratory in the frozen state. When dry ice is not available locally, the Department of Virus and Rickettsial Diseases, 406th Medical General Laboratory should be consulted that time and effort may not be needlessly wasted. In a limited number of instances this laboratory will furnish dry ice and reefer boxes when circumstances warrant. Such services are available only after telephone consultation with Commanding Officer, 406th Medical General Laboratory, APO 500, Tokyo, Japan.

1. Blood for isolation should be collected as follows - as soon as virus infection is suspected, withdraw 12 ml of blood in a dry, sterile syringe and transfer to a sterile centrifuge tube. Centrifuge after clot reaction, withdraw serum carefully, and place it in a small sterile bottle or vials with rubber closures, preferably of the sleeve type. If air shipment is used, the stopper should be secured by adhesive tape or wire. Both serum and clot should be forwarded.

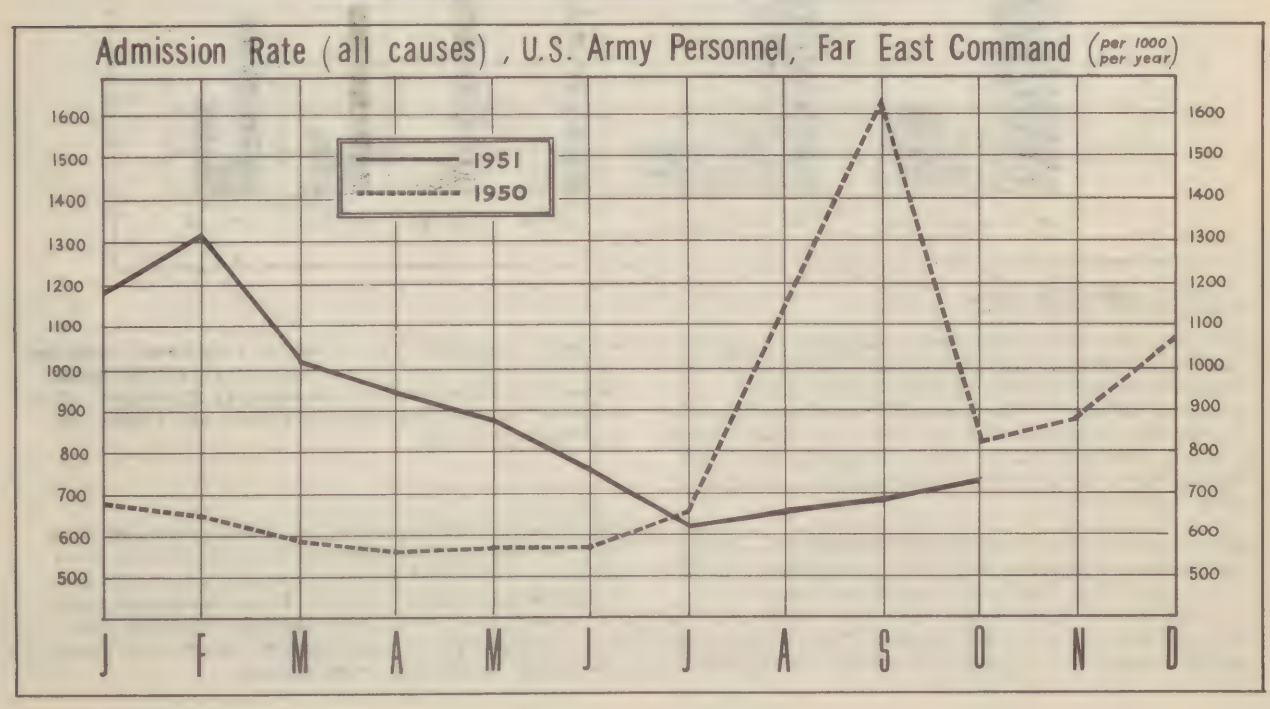
2. Freeze contents by immersing the glass containers in a mixture of alcohol and dry ice. Rotate while freezing; this distributes the contents over a greater surface area and prevents breakage from expansion of fluid. Wrap the containers in cotton held in place with adhesive tape and pack carefully in a half gallon or gallon size vacuum bottle. Fill the remainder of the vacuum thermos bottles with small pieces of dry ice. (The dry ice may be broken up by wrapping it in a piece of cloth and then crushing it with a hammer.) Cut a small notch down the side of the stopper of the bottle, stopper the bottle and pack carefully in a strong corrugated cardboard box. If vacuum bottles are not available, an impervious metal mailing container, such as is used for shipping ordinary bacteriological specimens, and a cardboard box may be substituted. The vial or tube containing the frozen specimen is packed in cotton in the metal container, which is then placed in a stout cardboard box filled with small pieces of dry ice and enough sawdust or similar material, to fill the spaces and provide insulation. This box should be large enough to hold at least eight to ten pounds of dry ice if the shipment is expected to be 24 to 36 hours. The box is sealed with tape and wrapped with several layers of heavy paper.

3. Label the package Specimen For Bacteriological Diagnosis - RUSH - KEEP COOL, and designate that it is fragile and must not be dropped. Send this specimen and a history of the case in duplicate by Air Courier or RTO Express to the Department of Virus and Rickettsial Diseases, 406th Medical General Laboratory, APO 500, Tokyo, Japan. Telephoning this Laboratory is advised when the specimen is sent so that its handling can be expedited.

(b) Spinal fluid - place about 3.0 ml. of spinal fluid in each of three sterile Pyrex Wasserman tubes or, preferably, clean, sterile vaccine vials. Stopper, freeze, label and ship to the Department of Virus and Rickettsial Diseases, as directed for blood.

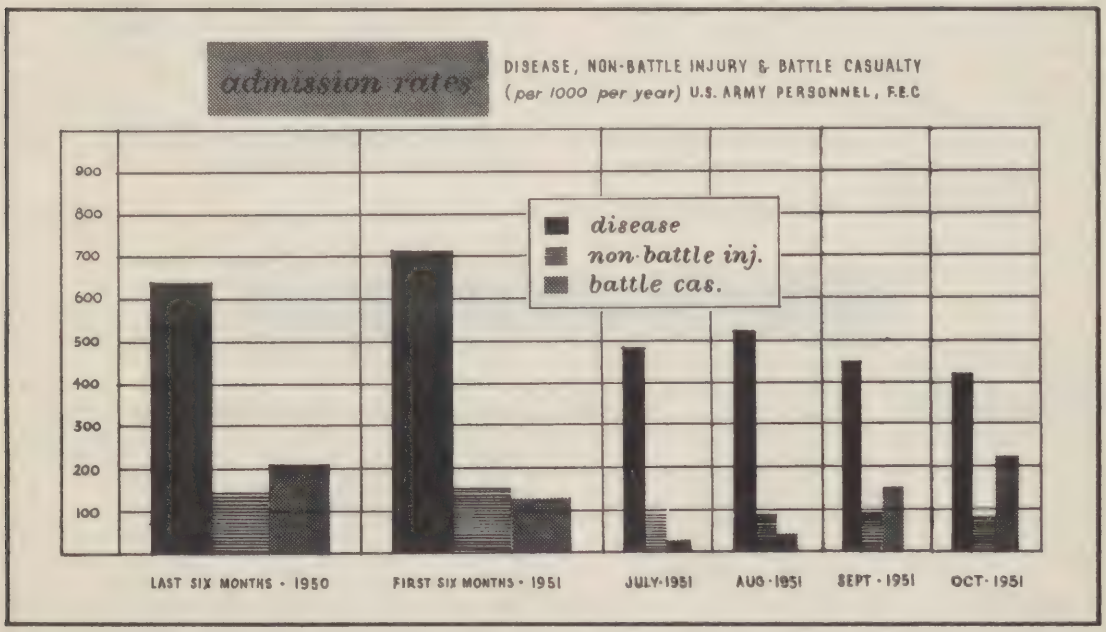
(c) Throat washings - throat washings for influenza should be collected during the first 48 hours after onset of disease. These are best taken by allowing the patient to gargle with 15 to 20 cc of nutrient broth, with the patient expectorating the washings into a wide-mouthed sterile specimen bottle. Such material should then be frozen immediately, and sent in the frozen state to the Department of Virus and Rickettsial Diseases, 406th Medical General Laboratory, APO 500, Tokyo, Japan. Since such shipment necessitates the use of dry ice, the Commanding Officer of the 406th Medical General Laboratory should be notified by telephone before shipment is initiated in order that this material be handled most expeditiously.

HEALTH OF ARMY TROOPS, FEC



Admission rates per 1,000 troops per annum, Army personnel, for the five-week period ending 31 October 1951, were as follows:

	FEC	JAPAN	KOREA	MARBO	PHILCOM (AF)	RYCOM
All Causes	735	487	874	282	298	437
Diseases	427	433	429	246	267	378
Injuries	86	54	103	36	31	58
Battle Casualties	222	0.09	342	0	0	0
Psychiatric	40	15	55	7.2	7.6	7.5
Common Respiratory Diseases and Flu	67	114	45	36	115	59
Primary Atypical Pneumonia	2.0	2.5	1.9	7.2	0	0
Bacillary Dysentery	0.48	0.17	0.62	0	0	0.84
Amebiasis	0.94	1.2	0.87	0	0	0
Malaria, new	7.7	7.3	8.4	0	7.6	0
Infectious Hepatitis	7.6	8.0	7.3	0	0	13
Dermatophytosis	3.7	3.6	3.2	7.2	0	15
Rheumatic Fever	0.45	0.09	0.66	0	0	0
Venereal Diseases	185.	201	177	36	69	202
		DAILY NON-EFFECTIVE RATE				
all Causes	29	65	13	8.3	39	11



ALL CAUSES ADMISSION RATE:

Army personnel of the Far East Command were admitted to medical treatment facilities and quarters for all causes at a rate of 735 per thousand troops per annum during October. The September rate was 689. Increases were reported from all commands except MARBO. As in the previous month, the increase in Korea of the all causes rate is due entirely to a rise in battle casualties.

The disease component of the all causes admission rate decreased from the 448 rate in September to 427 in October. This Far East Command decrease is due to a drop in the Korea rate. The only command to reflect a lessened rate for disease. The rate for infectious hepatitis remained the same. Throughout all the major commands the rates for reportable diseases remained fairly static, reflecting slight seasonal changes in diseases such as malaria, dysentery, diseases of the central nervous system and common respiratory diseases.

The nonbattle injury rate for October dropped from the previous month's rate of 95 to 86 for October. The rates decreased in all commands except RYCOM. The nonbattle injury rate in Korea decreased from 111 in September to 103 in October, in sharp contrast to the battle casualty rate which rose from 227 to 342 during the same period.

DAILY NON-EFFECTIVE RATE:

The Far East Command daily non-effective rate increased to 29 in October from the 23 rate for September. The most significant rise is reflected in the Japan rate, from 51 in September to 65 in October, due to the increased number of evacuations from Korea, especially of battle casualties. The non-effective rate for all other commands remained static.

DISEASES:

COMMON RESPIRATORY DISEASES AND INFLUENZA:

The rate for common respiratory diseases and influenza increased from 64 in September to 67 in October. This increase is to be expected at this time of year. The rate in Korea is especially favorable, showing a decline from the September rate. The 1950 October rate was 64 as compared to the 1951 rate of 45. Japan and PHILCOM (AF) reported increases, the MARBO and RYCOM rates decreased.

PSYCHIATRIC:

A substantial increase occurred in the psychiatric rate for the Far East Command. The rate rose to 40 in October, while the rate for the previous month was 28. This rise is due almost entirely to the Korea rate which rose approximately 50%, from 36 to 55. This increase is consistent with the increased incidence of battle casualties. RYCOM reported a decrease, while the rates for Japan, MARBO and PHILCOM (AF) remained static.

MALARIA:

The rate for new malaria in the Far East Command decreased from 13 in September to 7.7 in October. Korea and Japan shared equally in the decrease. No cases were reported from MARBO or RYCOM. This lessened incidence of malaria is commensurate with the season and compares favorably with past experience.

DYSENTERY:

The incidence of dysentery continues to decrease in all the major commands. No cases were reported from PHILCOM (AF) or MARBO. The Korea rate of 3.2 for October continues to be higher than the Far East Command rate of 2.6. Of the classified dysentery cases reported, amebiasis cases are in the majority.

INFECTIOUS HEPATITIS:

No change occurred in the incidence of infectious hepatitis occurring in Army troops in the Far East Command. The rate remained 7.6. The Korea rate dropped slightly, while the Japan and RYCOM rates increased. No cases were reported from MARBO or PHILCOM (AF).

VENEREAL DISEASES:

The venereal disease rate of 185 for October remained the same as for the previous month. Only slight changes were reported in Korea and Japan. The RYCOM rate rose from 172 in September to 202 in October.

It should be noted that venereal disease rates shown throughout this report differ from other rates cited in that venereal disease rates include the new cases treated on a duty status (out-patient basis) in addition to those treated on an excused from duty status. Other rates reported include only the cases admitted to hospitals and treated on an excused from duty status.

EPIDEMIC HEMORRHAGIC FEVER:

Information on this disease as reported herein will cover the months of October and November inasmuch as special reporting procedures for this disease make possible more current collection of data. The incidence of the disease dropped off during the month of August and the first half of September. During the last week in September, the number of cases again began to increase. This rise continued throughout the month of October and reached a peak during the first two weeks in November. It is too early to predict that the epidemic is or is not nearing its end. However, the number of cases reported showed a marked reduction during the last two weeks in November. At this time it would appear that the occurrence of this disease in United Nations troops is consistent with the experience of the Japanese Army in Manchuria. The total number of cases occurring by the end of November was approximately 700 with 62 reported deaths. Studies to determine the causative organism, the most effective treatment, and the methods of control are continuing.

OTHER REPORTABLE DISEASES:

No epidemics of smallpox, scarlet fever, measles or mumps occurred in the commands during October. Diseases falling into the category of undiagnosed and chronic conditions continue to be the principal contributors to the all diseases admission rate. Poliomyelitis, encephalitis and meningitis reflected a seasonal decline. No Japanese "B" encephalitis cases occurred during October. Six cases of cold injuries were reported, 5 from Korea and 1 from RYCOM.

DEATHS:

During the five-week period covered by this report, 182 deaths of U. S. Army personnel were reported by all medical treatment facilities in the Far East Command. Of this total, 139 were battle casualties, 25 resulted from disease 18 from nonbattle casualties. Eighteen of the battle casualty deaths occurred after evacuation to Japan.

HOSPITALIZATION:

The percent of designated beds and operating beds in Army hospitals occupied as of 31 October was as follows:

	Percent of Designated Beds Occupied	Percent of Operating Beds Occupied
JAPAN	68	85
KOREA	59	51
MARBO	13	6.4
PHILCOM (AF)	55	47
RYCOM	51	55
FEC	64	71

The bed status as of 31 October 1951 was as follows: (These data cover all patients, Army, Air Force and others).

			AVERAGE BEDS OCCUPIED	
	Designated Beds	Operating Beds	All Patients Army Hospitals	Army Patients USAF Hospitals
JAPAN	11,700*	9,390	7,988	606
KOREA	4,700	5,358	2,758	4
MARBO	200	390	25	0
PHILCOM (AF)	100	116	55	6
RYCOM	400	368	202	0
FEC	17,100	15,622	11,028	616

In Korea, there were 13,000 PsW operating beds, 9,536 of which were occupied.

(*Includes 2,000 TD beds)

EVACUATION:

Tabulated below is the number of patients (all types of personnel) evacuated from the major commands to the ZI during the four report weeks in October and the number of patients awaiting evacuation as of 26 October 1951:

	By Air	By Water	TOTAL	Patients Awaiting Evacuation
JAPAN	2,034	12	2,046**	126
MARBO	1	0	1	0
PHILCOM (AF)	16	0	16	2
RYCOM	93	1	94	10
FEC	2,144	13	2,157	138

(**1,690 patients originated from Korea)

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The Chief Surgeon extends an invitation to all Far East Command medical personnel of the U. S. Army, Navy and Air Force, or of the United Nations, to prepare and forward with view to publication, articles of professional or administrative nature. It is assumed that editorial privilege is granted unless author states otherwise.

Capt. Charles A. Copeland, MSC EDITOR